



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D4822-2
Job Sheet 167750



169823

Part No: D4822-2

Job Qty: 8 ea

Part Name: Upper Right Deflector



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/6/17

Job Tracking No:

Due Date: 12/8/17

Created By: Chantal Lavoie

Type: Stock

Description:

Ship Via:

Aug Rev-C

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	8 Ea		12/7/17	0.00	0.00	Start Up Machining		
100	Bandsaw	8 pcs		12/8/17	0.00	1.95	Bandsaw1		
110	Purchasing	8 pcs		12/8/17	0.00	0.00	Purchasing		
115	Packaging	8 pcs		12/8/17	0.00	0.00	Packaging2		DAS
117	QC	8 pcs		12/8/17	0.00	0.00	QC6		38
120	Outsource	8 pcs		12/8/17			ATG001-VC Outsource		AT 19/03/01
122	QC	8 pcs		12/8/17	0.00	0.00	QC14		DAS
140	QC	8 pcs		12/8/17	0.00	0.00	QC5		3811 MAR 0 2 2018
170	Packaging	8 pcs		12/8/17	0.00	0.00	Packaging3 cckar		DAS 89
190	QC21-SA	8 Ea		12/8/17	0.00	0.00	QC21		21 9-80 MAR 0 5 2018

Part Op 100 - CUT AT 32.00" LONG

Descriptions: 110 - ISSUE P/O: 035259 POSSIBLE SUPPLIER: WEJAY ***1 BLANK MAKES 2 PARTS**** Certificate of conformaty required

115 - Receive & Inspect for Damage & Mat'l Certs

117 - QC6- All purchased or subcontracted products

120 - HARD ANODIZE IAW MIL-A-8625 TYPE 3 COLOUR BLACK PRIME AS PER DWG NOTE #2

122 - QC14- Inspect Spray Paint

140 - QC5- Inspect part completeness to step on W/O

170 - Identify as per dwg & Stock Location: _____

190 - QC21- Final Inspection - Work Order Release

NOV 0 6 2017

JAN 3 1 2018

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M7075T634.000X4.000	135	13	0	0
110-Purchasing	D4822-2P	8	0	0	0

Part Specifications

Specifications could not be found.

Mfg Date: 01/08/18
Job No: 167750

Purchasing

D4822-2

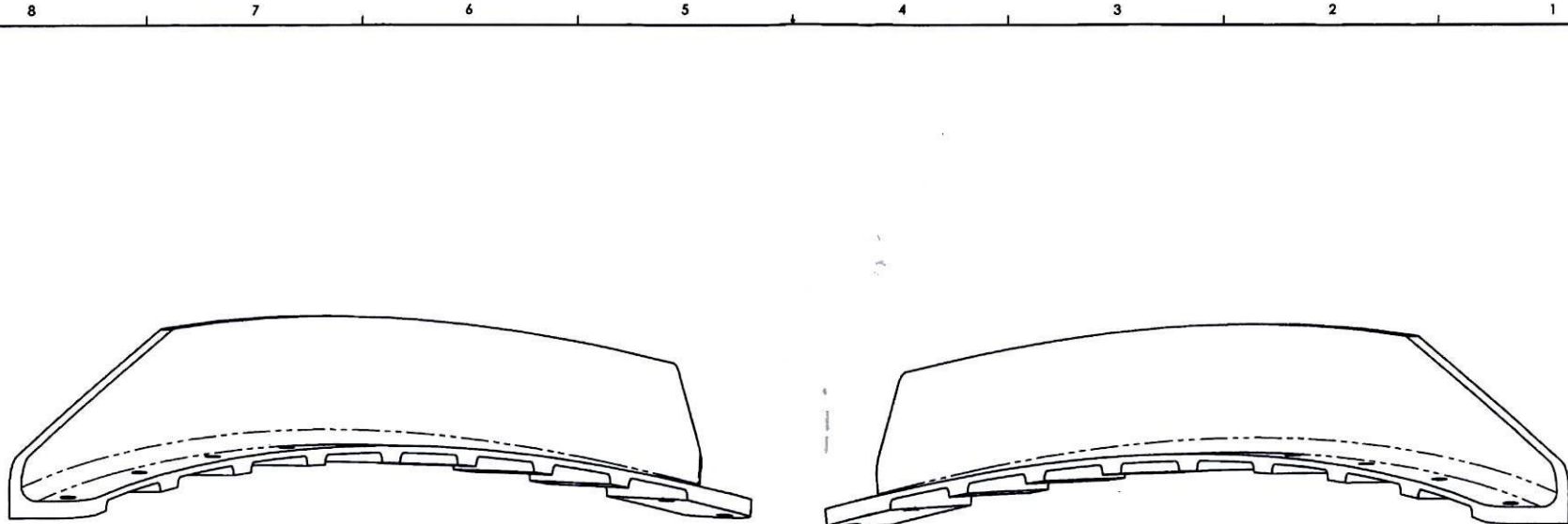
PART NO:
Revision:
Operation:
Change No:



Upper Right Deflector

PART
AEROSPACE
S030129

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



D4822-1 UPPER DEFLECTOR LH

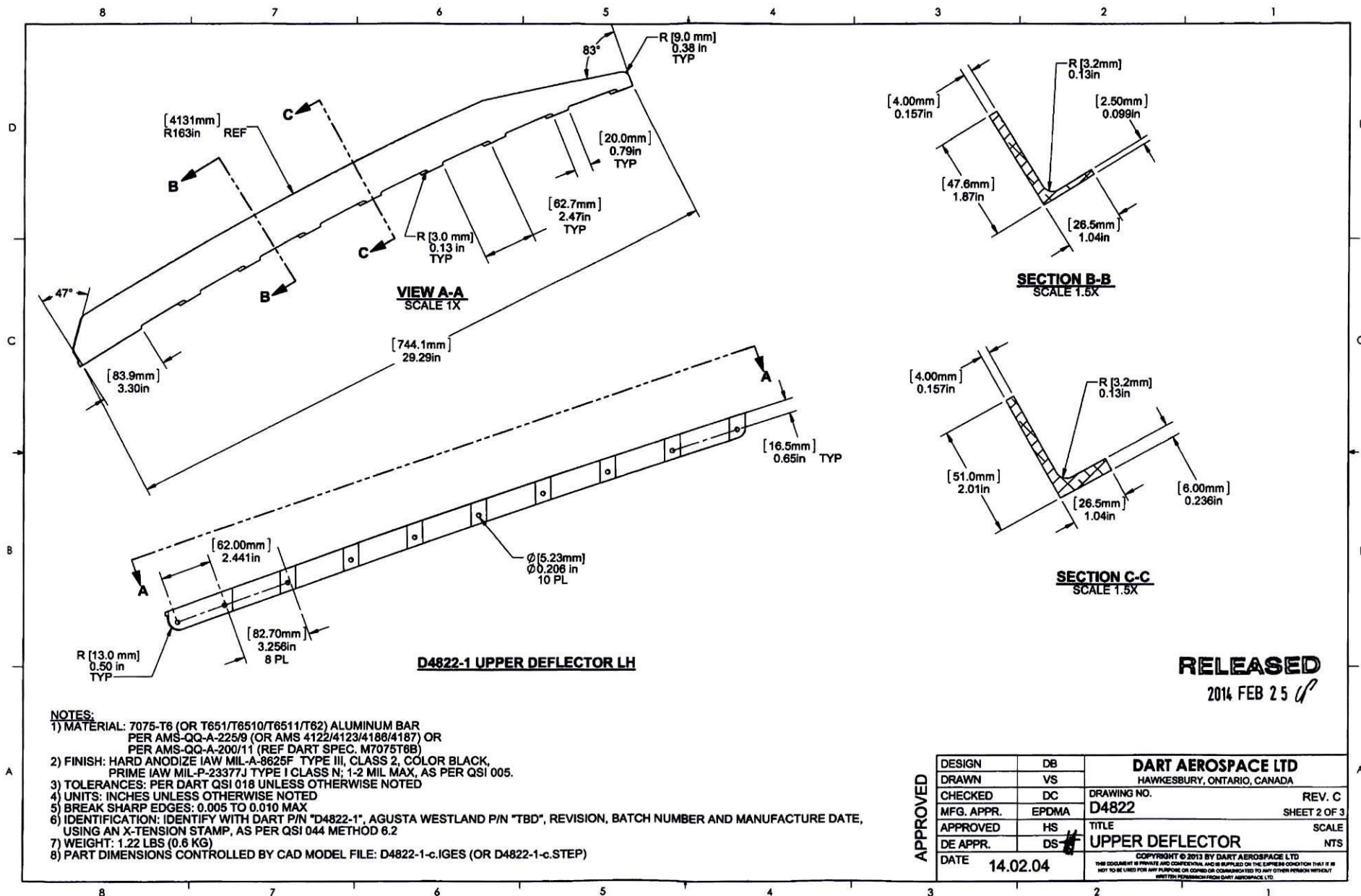
D4822-2 UPPER DEFLECTOR RH

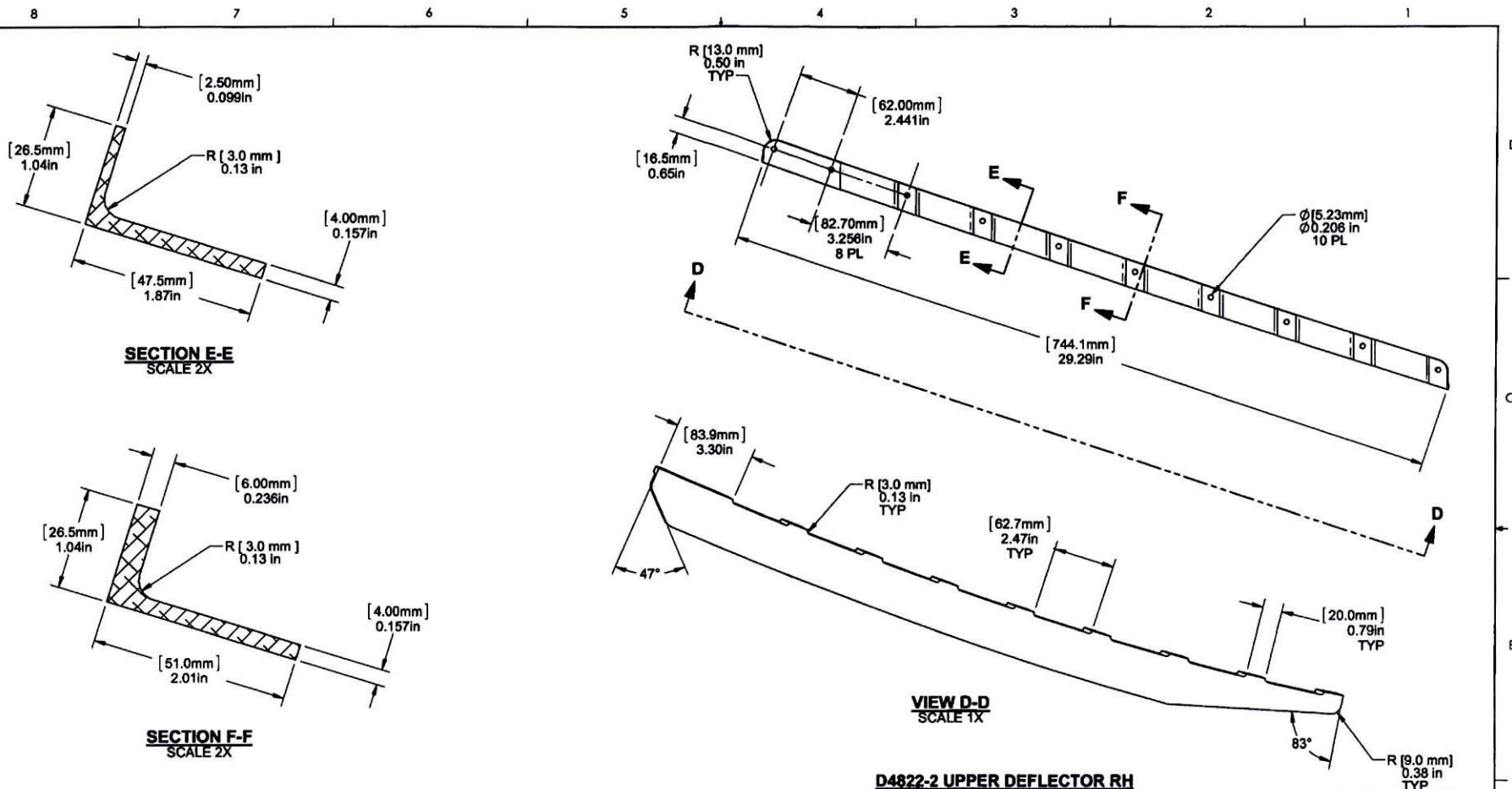
RELEASED

2014 FEB 25
Ecal M-516

C	DRAWING REVISED TO NEW CUSTOMER CAD DATA, RIVET HOLES ADDED	DB	14.02.04
B	CORRECTED WEIGHT	DW	13.09.24
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
DATE	14.02.04	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED





NOTES:

- 1) MATERIAL: 7075-T6 (OR T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/9 (OR AMS 4122/4123/4186/4187) OR
PER AMS-QQ-A-200/11 (REF DART SPEC. M7075T6B)
- 2) FINISH: HARD ANODIZE IAW MIL-A-8625F TYPE III, CLASS 2, COLOR BLACK,
PRIME IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX, AS PER QSI 005.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4822-2", AGUSTA WESTLAND P/N "TBD", REVISION, BATCH NUMBER AND MANUFACTURE DATE,
USING AN X-TENSION STAMP, AS PER QSI 044 METHOD 8.2
- 7) WEIGHT: 1.22 LBS (0.6 KG)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: D4822-2-c.IGES (D4822-2-c.STEP)

APPROVED

DESIGN	DB	DART AEROSPACE LTD	
DRAWN	VS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 3 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
DATE	14.02.04	COPYRIGHT © 2013 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

RELEASED

2014 FEB 25



Packing Slip 38873

600 O'CONNOR DRIVE, KINGSTON, ONTARIO K7P 1N
 TEL: 613-384-1662 FAX: 613-384-299
 www.wejay.cor

SOLD TO
 Dart Aerospace
 1270 Aberdeen Street
 Hawkesbury ON K6A 1K7

SHIP TO
 Dart Aerospace
 1270 Aberdeen Street
 Hawkesbury ON K6A 1K7

INVOICE DATE		YOUR ORDER NO. 038259		DATE ORDERED 11/07/17		SHIPPED VIA Best way	
CUSTOMER CODE 1 ANT			PROV. LIC. NO.		Extra ☐ Exempt ☐		TERMS
QUANTITY ORDERED	B.O.	QUANTITY SHIPPED	DESCRIPTION			UNIT PRICE	AMOUNT
2	1	1	Windshield deflector - upper as per drawing D4970, Rev. C Part number: D4970-3P Job Number: 167748				
10	10	0	Upper deflector, LH as per drawing D4822, Rev. C Part number: D4822-1P Job number: 167749				
8	5	3	Upper right deflector as per drawing D4822, Rev. C Part number: D4822-2P Job number: 167750				
4	0	8	Windshield deflector as per drawing D4821, Rev. B Part number: D4821-1P Job number: 167750				
RELEASE NOTE I certify that the items listed herein have been inspected and tested and conform to all specifications and requirements in the contract or purchase order. Inspection Supervisor: <i>[Signature]</i> Required by: November 20, 2017 WMP 03 H.S.T.							

SPR 1227

ORDER: COMPLETE ☐ PARTIAL ☐

TOTAL

NO GOODS RETURNED WITH PRIOR AUTHORIZATION

RECEIVED BY _____
 1.5% PER MONTH (18% PER ANNUM)
 CHARGED ON OVERDUE ACCOUNTS



600 O'CONNOR DRIVE, KINGSTON, ONTARIO K7P 1N3

PHONE: (613) 384-1662

FAX: (613) 384-2997

CERTIFICATE OF COMPLIANCE

CUSTOMER: Dart Aerospace		DATE: Dec. 12, 2017	
		P.O.# PO38259 item 3	
		WEJAY JOB# 38873	
I hereby certify that the following material has been inspected/tested and conforms to the requirements and specifications as stated in your contract and as noted below.			
PART NO.	QTY.	PROCESS (ES)	SPECIFICATION / REV
D4822-2P 'Upper Right Hand Deflector' Job Number: 167750	3	Machined complete per drawing req'ts.	D4822 / rev. C
Note: 1) Material supplied by Dart Aerospace: for qty 3 parts ref. Dart Batch# M133930. <u>FM133930</u> 2) 1st Article Inspection Report attached.			

Records of Inspection/Test will be retained for 5 years minimum.

Sincerely,

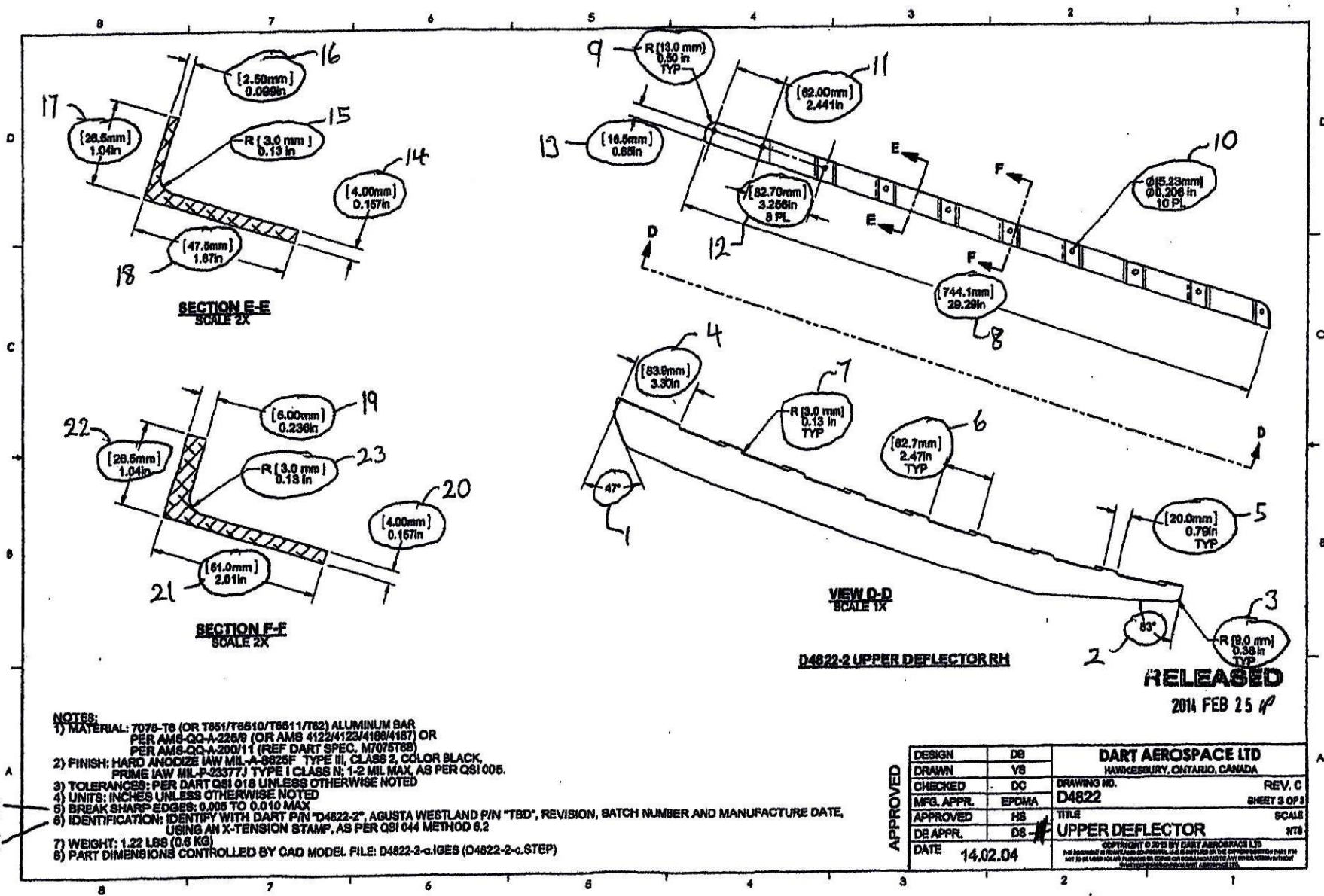
Clifford Smith

Authorized Q.A. Signatory

(Report all dimensions and features required by drawing)

Drawing Number (Including Revision): D4822-2P REV. C

Form No WJM-05, Rev 1





600 O'CONNOR DRIVE
KINGSTON, ONTARIO
K7P 1N3

INSPECTION / TEST REPORT

JOB No.

38873

37749 REF.

PAGE: 1 of 1

CUSTOMER: Dart Aerospace

CUST. P.O.# P.O. 30870 REF. -NEW- P.O. #38259 ITEM 3

PART No. D4822-2

DESCRIPTION: Deflector Right Hand

DWG No. D4822

REV. C

E.C.O. --

MATERIAL:

INSPECTOR: [Signature]

QUANTITY
REC'D: 1

ACCEPT: 1

REJECT: -

N.C.R.# -

DATE:

JAN 29 / 16

INSTRUCTIONS, COMMENTS: Standard Tolerances per DART QSI 018 unless otherwise noted

1ST ARTICLE INSPECTION

DEC 12 / 17

ITEM REF. No.	CHARACTERISTIC (DIMS IN mm)	DETAILS	TOLERANCE	DWG SHT/ZONE	RESULT	QTY. INSP.	COMMENTS (ACC. REJ. REW. NMR #)
---------------------	--------------------------------	---------	-----------	-----------------	--------	---------------	---------------------------------------

1	47°	View D-D	±.5°	3/B5	46.5°	1	Acc.
2	83°		±.5°	3/B2	82.5°	1	"
3	R 0.38" typ.		±.03	3/B1	R. 38 typ.	1	"
4	3.30"		±.03	3/C5	3.308	1	"
5	0.79" typ.		±.03	3/B1	.794 / .805	1	"
6	2.47		±.03	3/B3	2.457 / 2.460	1	"
7	R 0.13 typ.		±.03	3/C4	R. 125 typ.	1	"
8	29.29"		±.03	3/C3	29.315	1	"
9	R0.50" typ		±.03	3/D5	R. 500 typ.	1	"
10	Ø0.206 hole thru	10 pl.	+0.005 / -.001	3/D1	.206 typ.	1	"
11	2.441"		±.010	3/D4	2.442	1	"
12	3.256" typ.	8 pl.	±.010	3/D4	3.255 / 3.257	1	"
13	0.65" typ.	10 pl.	±.03	3/D5	.648 / .652	1	"
14	0.157"	Section E-E	±.01	3/D6	.1595 / .161	1	"
15	R0.13" typ. - .197" RAD ON E-MODEL		±.03	3/D7	R. 190 typ.	1	"
16	.099"		±.01	3/D7	.097 / .107	1	"
17	1.04"		±.03	3/D8	1.045 / 1.046	1	"
18	1.87"	Section F-F	±.03	3/C7	1.869 / 1.874	1	"
19	0.236"		±.01	3/C7	.233 / .244	1	"
20	0.157"		±.01	3/B6	.1595 / .161	1	"
21	2.01"		±.03	3/B7	2.003 / 2.010	1	"
22	1.04"		±.03	3/B8	1.045 / 1.046	1	"
23	R0.13" - .197" RAD ON E-MODEL		±.10	3/B7	R. 190 typ.	1	"
24	Deburring	Per note 5	.005-.010	3/A8	O.K.	1	"
25	Identification	Per note 6		3/A8	N/A	1	"

8 7 6 5 4 3 2 1

D

D

C

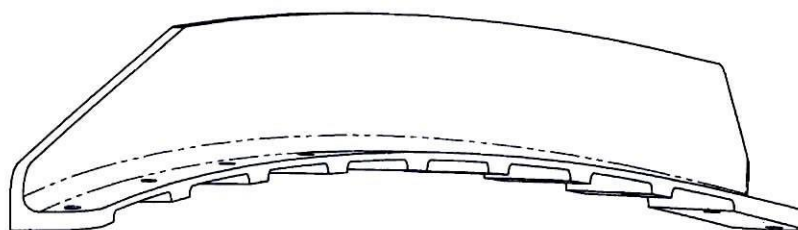
C

B

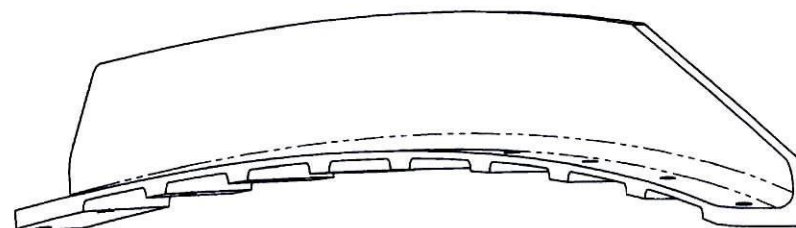
B

A

A



D4822-1 UPPER DEFLECTOR LH



D4822-2 UPPER DEFLECTOR RH

RELEASED

2014 FEB 25
ECW 19-516

C	DRAWING REVISED TO NEW CUSTOMER CAD DATA, RIVET HOLES ADDED	DB	14.02.04
B	CORRECTED WEIGHT	DW	13.09.24
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
DATE	14.02.04	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

8 7 6 5 4 3 2 1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								



Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038921

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone 613-446-4544
Fax 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038921

PO Date: 1/31/18

Due Date: 2/9/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Baker, Diane
dbaker@dartaero.com

E-MAILED
FEB 06 2018

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items				Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
Line Item	Job	Part	Description							
1	170477	646 3812	Gusset Bracket Issue P/O to ATG: _____ Hard Anodize Black and Prime as Per Dwg 646.3800	Firmed	2/16/18	24 pcs	0 pcs	24 pcs	\$7 22/pcs	\$173 28
						✓ 24x	AT 18/03/01			
2	167748	D4970-3	Windshield Deflector - Upper Issue P/O to ATG: _____ Hard Anodize, Color Black and Prime as per Dwg D4970 Rev. C	Firmed	2/16/17	1 pcs	0 pcs	1 pcs	\$35 87/pcs	\$35 87
						✓ 1x	AT 18/03/01			
3	167750	D4822-2	Upper Right Deflector Hard Anodize, Color Black and Prime as Per Dwg D4822 Rev. C	Firmed	2/16/17	3 pcs	0 pcs	3 pcs	\$31 12/pcs	\$93.36
						✓ 3x	AT 18/03/01			
4	167751	D4821-1	Windshield Deflector Issue P/O: _____ Hard Anodize, Color Black and Prime as per Dwg D4821 Rev. B	Firmed	2/16/17	8 pcs	0 pcs	8 pcs	\$51 37/pcs	\$410 96
5	169775	D5227-3	Seat Track Issue P/O: _____ Hard Anodize, Color Black and Prime as per Dwg D5227 Rev. A	Firmed	2/16/17	4 pcs	0 pcs	4 pcs	\$32 87/pcs	\$131 48
						✓ 4x	AT 18/02/11			
6	169922	RBW109- 3101-58-2-3	Hammer Head -Issue P/O to ATG: _____ -ANODIZE COLOR CLEAR, PER IAW MIL-A-8625F TYPE 2 CLASS 1, Water sealant -Certificate of Conformity is required	Firmed	2/9/18	5 pcs	0 pcs	5 pcs	\$3 47/pcs	\$17.35
						✓ 5x	AT 18/02/12			
7	169924	RBW109- 3101-58-2-7	Handle -Issue P/O to ATG: _____ -ANODIZE COLOR CLEAR, PER IAW MIL-A-8625F TYPE 2 CLASS 1, Water sealant -Certificate of Conformity is required	Firmed	2/9/18	4 pcs	0 pcs	4 pcs	\$3 47/pcs	\$13.88
						✓ 4x	AT 18/02/12			
8	168272	647.0110		Firmed	2/16/18	15 pcs	0 pcs	15 pcs	\$44 12/pcs	\$661 80
						✓ 15x	AT 18/03/01			

Plex 2/6/18 9:50 AM dart.baker.diane



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 914688

Date: 28-Feb-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Diane Baker
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
(3) ea	Part: D4822-2 Upper Right Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - 2 mils) per drawing. Job: 22463	Rev: C	PO: PO038921 Line: 3
(7) ea	Part: 647.0110 Roof Doubler Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 22468	Rev: A	PO: PO038921 Line: 8
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>28/2/18</u> Certified Signature: <u>[Signature]</u> Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. Made in Canada.			